SECTION 5: Soil and Crop Fertility Management — NOP Rule 205.203 and 205.205

A. GENERAL INFORMATION AND EVALUATION:

1. What are your general soil types?

2. What are your soil/nutrient deficiencies?

3. How do you monitor the effectiveness of your fertility management program?
   - ☐ soil testing
   - ☐ tissue testing
   - ☐ microbiological testing
   - ☐ observation of soil
   - ☐ observation of crop health
   - ☐ comparison of crop yields
   - ☐ crop quality testing
   - ☐ other (specify)

4. How often do you conduct fertility monitoring?
   - ☐ weekly
   - ☐ monthly
   - ☐ annually
   - ☐ as needed
   - ☐ other (specify):

5. Rate the effectiveness of your fertility management program.
   - ☐ excellent
   - ☐ satisfactory
   - ☐ needs improvement

6. What changes do you anticipate?

7. What are the major components of your soil and crop fertility plan?
   - ☐ crop rotation
   - ☐ inter-planting
   - ☐ green manure plow down/cover crops
   - ☐ soil amendments
   - ☐ summer fallow
   - ☐ incorporation of crop residues
   - ☐ on-farm manure
   - ☐ off-farm manure
   - ☐ biodynamic preparations
   - ☐ subsoiling
   - ☐ soil inoculants
   - ☐ side dressing
   - ☐ compost
   - ☐ foliar fertilizers
   - ☐ other (specify):

8. List all fertility inputs used or intended for use in the current season on proposed organic and transitional fields. *All inputs used during the current year and previous three years must be listed on the Field History Sheet.*

☐ Not applicable

Product	Manufacturer	Approved			
		NOP	ISDA	WSDA	OMRI
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

9. If you use or plan to use restricted fertility inputs, how do you comply with the "annotation"?
☐ Not applicable

10. If you use fertilizers with high salt content (sodium nitrate, potassium sulfate, etc.), how do you prevent salt build-up? ☐ Not applicable

11. Do you burn crop residues? ☐ Yes ☐ No

a. If yes, please describe what materials are burned and why:

12. Do you apply sewage sludge to fields? ☐ Yes ☐ No

a. If yes, list fields where applied:

B. COMPOST USE:

You must maintain records verifying that compost production meets NOP 205.203(c)(2). Failure to have verification of compliance for compost containing animal manure will require 90 or 120 days between application and harvest.

1. Do you use compost? ☐ Yes ☐ No

2. Do you purchase compost? ☐ Yes ☐ No

3. Do you make your own compost? ☐ Yes ☐ No

a. If yes, what is the initial C:N ratio:

b. If yes, what composting method do you use?
☐ in-vessel ☐ static aerated pile ☐ windrows ☐ other (specify)

i. If in-vessel or static aerated pile system what temperature do you maintain?

ii. If in-vessel or static aerated pile system, how long do you maintain this temperature?

iii. If windrow system, what temperature do you maintain?

iv. If windrow system, how long do you maintain this temperature?

v. If windrow system, how many times are materials turned?

C. MANURE USE:

1. What forms of manure do you use? ☐ none ☐ liquid ☐ semi-solid
   ☐ piled ☐ fully composted ☐ other (specify)

2. What types of crops do you grow? Check all boxes that apply.
   ☐ crops not used for human consumption
   ☐ crops for human consumption whose edible portion has direct contact with the soil or soil particles
   ☐ crops for human consumption whose edible portion does not have direct contact with the soil or soil particles

3. If you grow crops for human consumption and use raw manure, complete the following table:

Crop(s)	Field numbers	Date manure is applied	Expected date of harvest

4. What is the source of the manure you use? ☐ on-farm ☐ off-farm ☐ Not applicable

5. List all sources of off-farm manure:

6. List all manure ingredients/additives:

7. If you use manure, what are the potential contaminants (pit additives, feed additives, pesticides, antibiotics, heavy metals, etc.) from these sources? *Attach residue analysis/additive specifications for manure, if available.*

D. NATURAL RESOURCES:

1. Biodiversity Management: Whole Farm Biodiversity Considerations.

   a. Does your field map include features such as hedgerows, woodlands, wetlands, riparian zones, and special habitats? ☐ Yes ☐ No

   b. List native plants present, and/or wildlife seen moving through farm *(note priority species)*:

   c. What steps do you take to plan/provide for biodiversity conservation?
      ☐ understand farm's location within watershed
      ☐ ascertain what native plants and animals existed on the land before it was a farm

☐ learn about regional natural areas and conservation priorities
☐ work with neighbors/others to enhance biodiversity (connectivity, restoration, etc.)
☐ other (describe/explain):

d. How do you manage water for the needs of crops/livestock, native species and riparian ecosystems?
☐ plant regionally appropriate crops ☐ conserve water
☐ manage water for priority species ☐ retain/restore vegetated riparian buffers/wetlands
☐ protect/improve natural hydrology/ecological function of riparian area
☐ other (describe/explain):

2. Biodiversity Management: Uncultivated Area Biodiversity.

a. What actions do you take to provide habitat for pollinators, insect predators, birds and bats?
☐ bird/bat/bee boxes ☐ maintain/provide natural roosting/nesting/foraging sites
☐ hedgerows/windbreaks ☐ other (describe/explain):

b. How are you restoring and/or protecting natural areas?
☐ manage for native plants/wildlife specific to the site ☐ preserve/restore wildlife corridors
☐ native habitats not converted to farmland since certification ☐ establish legal conservation areas
☐ other (describe/explain):

c. List problem invasives:

d. What actions do you take to control invasive plant/animal species, especially those threatening natural areas? ☐ use weed- and pest-free seed/planting stock/soil amendments/mulches
☐ monitor for new introductions and control immediately ☐ learn about invasives
☐ suppress invasives using organic methods ☐ other (describe/explain):

3. Biodiversity Management: Cropland Area Biodiversity.

a. How do you conserve and provide habitat for wildlife?
☐ wildlife-friendly fences ☐ companion planting/intercropping
☐ crop diversity ☐ manage fallow fields for wildlife
☐ other (describe/explain):

b. How do you schedule farm practices to benefit wildlife?
☐ plan fields to leave food/cover for wildlife ☐ avoid nests during breeding season
☐ stagger mowing/tilling practices ☐ other (describe/explain):

c. Have you assessed the farm for biodiversity problems and greatest opportunities, and developed goals an a timeline for biodiversity conservation? ☐ Yes ☐ No
i. If yes, describe/explain:

d. How do you monitor farm biodiversity?
☐ visually ☐ species counts ☐ other *(describe/explain)*

4. Biodiversity Management: When livestock are involved. ☐ No livestock involved

a. How do you protect riparian areas and sensitive habitats?
☐ fence without impacting wildlife ☐ control sensitive area access

☐ prevent bank erosion ☐ animals fed away from water
☐ other (describe/explain):

b. What are you doing to improve your pasture or rangeland?
☐ prevent overgrazing ☐ active grazing management system
☐ reseed trampled/eroded areas ☐ plant native pasture
☐ prescribed burning ☐ other (describe/explain):

c. What wildlife-friendly management practices do you use?
☐ grazing scheduled when predation pressure low ☐ guard animals
☐ livestock spend night in protected area ☐ circumstances of livestock death documented
☐ other (describe/explain):

d. List problems with predators or other wildlife:

5. Biodiversity Management: Wild Harvest Enterprises. ☐ No wild harvest

a. How do you maintain or improve the sustainability of the harvested species?
☐ harvest from stable populations ☐ minimize disruption of priority species/sensitive habitats
☐ avoid erosion ☐ allow re-establishment
☐ monitor wild crop sustainability ☐ other (describe/explain):

6. Soil Conservation

a. What soil conservation practices are used?
☐ terraces ☐ contour farming ☐ conservation tillage ☐ winter cover crops
☐ firebreaks ☐ strip cropping ☐ permanent waterways ☐ under sowing/inter-planting
☐ tree lines ☐ retention ponds ☐ maintain wildlife habitat ☐ riparian management
☐ windbreaks ☐ other (specify):

b. What soil erosion problems do you experience (why and on which fields)? ☐ none

c. Describe your efforts to minimize soil erosion problems listed above:

d. Describe how you monitor the effectiveness of your soil conservation program:

e. How often do you conduct conservation monitoring?
☐ weekly ☐ monthly ☐ annually ☐ as needed ☐ other (specify):

E. WATER USE: ☐ Not applicable

1. Check the boxes that describe water use on your operation.
☐ irrigation ☐ livestock ☐ foliar sprays
☐ washing crops ☐ greenhouse ☐ other (specify):

2. Source of water: ☐ on-site well(s) ☐ river/creek/pond ☐ spring
☐ municipal/county ☐ irrigation district ☐ other (specify):

a. If water is sourced from an irrigation district, what is the name of the managing company?

b. If water is sourced from an irrigation district, how do you prevent unintended algaecide application to crops
☐ Water shut off ☐ Documents from the irrigation district show no applications.

3. Type of irrigation system:
☐ none ☐ drip ☐ flood ☐ center pivot ☐ other (specify):

4. What input products are applied through the irrigation system? ☐ none

5. What products do you use to clean irrigation lines/nozzles? ☐ none

6. Is the system shared with another operator? ☐ Yes ☐ No

a. If yes, what products do they use?

7. Is the system flushed and documented between conventional and organic use? ☐ Yes ☐ No

8. What practices are used to protect water quality?
☐ fencing livestock from waterways ☐ scheduled use of water to conserve its use
☐ tensiometer/monitoring ☐ laser leveling/land forming
☐ drip irrigation ☐ micro-spray
☐ sediment basin ☐ compost/fertilizer stored away from water
☐ other (specify):

9. List known contaminants in water supplies in your area (*Attach residue analysis and/or salinity test results, if applicable):*

10. Describe your efforts to minimize water contamination problems listed above. ☐ Not applicable

11. Describe how you monitor the effectiveness of your water quality program.

12. How often do you conduct water quality monitoring?
☐ weekly ☐ monthly ☐ annually ☐ as needed ☐ other (specify):